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Instability, Liquidity and World Money:
Perspectives on the US Dollar

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Abstract

This paper considers the dollar's position as the leading international money. Neoclassical and Post Keynesian theories are applied to the case of the dollar to determine if it is losing its status as the key international currency, to what extent and why. To achieve this, the international functions of the dollar are looked at over time and analyzed according to the two perspectives.

Keywords

International Money, Neoclassical Economics, Post Keynesian Economics

Chapter 1

Introduction

1.1 Indication of Problem Area

It would seem, perhaps, that international currencies are a relatively new phenomenon, beginning with the British pound sterling or perhaps the Dutch guilder but in fact, as long as international trade has existed there has been a need for a world currency. The phenomenon dates back to at least the 6th century, when the coin of the Byzantine Empire ruled supreme and was accepted "by all men in all kingdoms" (Kiotaki, et al. 1993:283). Initially gold, or gold coins, like that of the Byzantine's, was the preferred type of currency for international transactions, as all parties recognized the inherent value of gold and then later, paper currencies backed by gold.

A world currency, like a domestic one, is defined by the functions that it serves. McKinnon states that international trading needs are addressed by:

> a 'system' of national monies [that] works more or less well in providing a medium of exchange and unit of account for current international transactions, as well as a store of value and standard of deferred payment for longer-term borrowing and lending (1993:1).

In this sense, a world currency is any national money that performs these functions in addition to its national functions. Krugman has identified the British pound and dollar as serving functions beyond their duties as national moneys. He states that:

> They served as stores of value, with balances held both by central banks and by private individuals; they were used as units of account, in which international obligations were dominated and in terms of which prices of commodities were set; and they were used as media of exchange, becoming "vehicles" through which transactions between other currencies were made (1980).

Magee and Rao have also identified the dollar as serving the functions of "a medium of exchange; a numeraire (also referred to as a unit of account or standard of value); and a standard of deferred payment or store of value" in the international system (1980:368).

However, since the collapse of the gold standard and later the Bretton Woods system, the *value* of money has changed. The printing of currency is at the sole discretion of governments and the citizens and governments of foreign nations who accept it must have faith in its value as being tradable for other goods in the future. This change in the international monetary system creates a number of new challenges. In the domestic sphere the use of money can be imposed by the government by fiat but in an anarchical world system the use of national currencies for international transactions becomes more complicated.

The dollar has been the primary international currency for several decades. The economic prowess of the US has solidified its political position and the international status of the dollar. However, the strong economy on which the dollar gained its position has become vulnerable. The voracious consumption of America, which was once an asset, has become a liability. Can the dollar survive as the preeminent world currency? What could serve as a replacement world money if it should collapse?

After the introductory chapter, a discussion of the theories of money from Neoclassical and Post Keynesian perspectives will take place in chapter 2. In chapter 3, a background of international money beginning with the gold standard and past international uses of the dollar will then be presented. Information on the price of the dollar and how it has changed over time will also be provided in chapter 3. The current status of the as world money according to Neoclassical, and Post Keynesian views will be analyzed in chapter 4. Chapter 5 will present the conclusions and answers to the research questions.

1.2 Research Justification

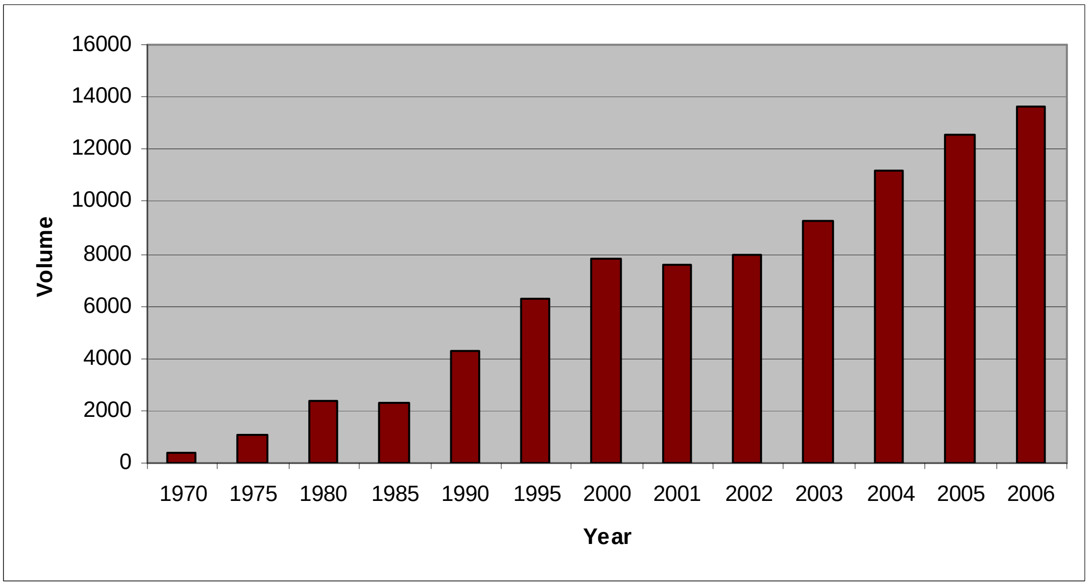
International trade has "often been called the engine of nineteenth-century growth." It is the life-blood of the world economy with approximately twenty percent of expenditure around the world being spent on goods or services produced in a foreign country (Williamson and Milner 1991:3, 5). In 2003 world trade was calculated at $9.1 trillion for goods and services (WTO 2004).

The seemingly endless growth of world trade is illustrated in figure 1.1 below, which shows the volume of world exports since 1970, data before 1970 wasn't available, however this graph is still able to demonstrate the importance of world trade. As can be seen below, the volume of world trade is enormous and continues to expand almost every year. In order to facilitate the continued expansion in world trade, there must be reliable international money.

Figure 1.1

Volume of World Exports

(Billions of US Dollars)



Source: International Monetary Fund

Even more significant than the volume of world trade, is the size of world capital flows. The sum of total net capital inflows and outflows (including foreign direct investment, portfolio investment, reserve accumulation and other investment) "has tripled over the last ten years to nearly $13 trillion." Almost every region has experienced a three-fold increase in the past ten years, with the most dramatic change occurring in the last five. This can be seen in table 1.1 which shows the net capital inflows and outflows from 1996 to 2006 broken down by region. While no comprehensive data exists for gross global capital flows, estimates place it well above the numbers for international trade (US Treasury 2007). This information just serves to underscore the need for a reliable way to manage international transactions.

Table 1.1

Total of Net Capital Inflows and Outflows

(Billions US Dollars)

	1996	2001	2006	Percent Change
United States	964.5	1165.5	2914.8	301.9
Japan	251.1	188.3	342.0	35.7
Euro	1429.0	1536.4	4045.5	283.1
UK	691.3	888.1	2444.6	353.6
Canada	93.0	133.1	272.0	292.5
Emerging Markets/ Developing Countries	732.4	397.3	2717.0	371.0
Total (of above)	4162.3	4308.7	12735.9	306.0

Source: US Treasury 2007

Since the end of the gold standard the question of what will serve as world money, has become ever more vital and complex. In the decades after World War II, the dollar has dominated international transactions and the United States has been one of the world's strongest economic and political powers.

Yet, in recent years, things have been changing. Many have noticed cracks beginning to form in the dollar standard. Richard Duncan has said, "The dollar standard has failed and has begun to collapse into crisis" and it could lead to a "worldwide economic slump" (2003). The implications of the end of the dollar standard for the United States but also the rest of the world are ominous. Diane Knuz, as far back as 1995, observed, "…The death of the dollar standard will drastically increase the price of the American dream while simultaneously shattering American global influence" (Portes and Rey 1998:308). John Miller has said, "The value of the dollar is falling…If an economic collapse is not in our future, then at least storm clouds are gathering on the horizon" (2005).

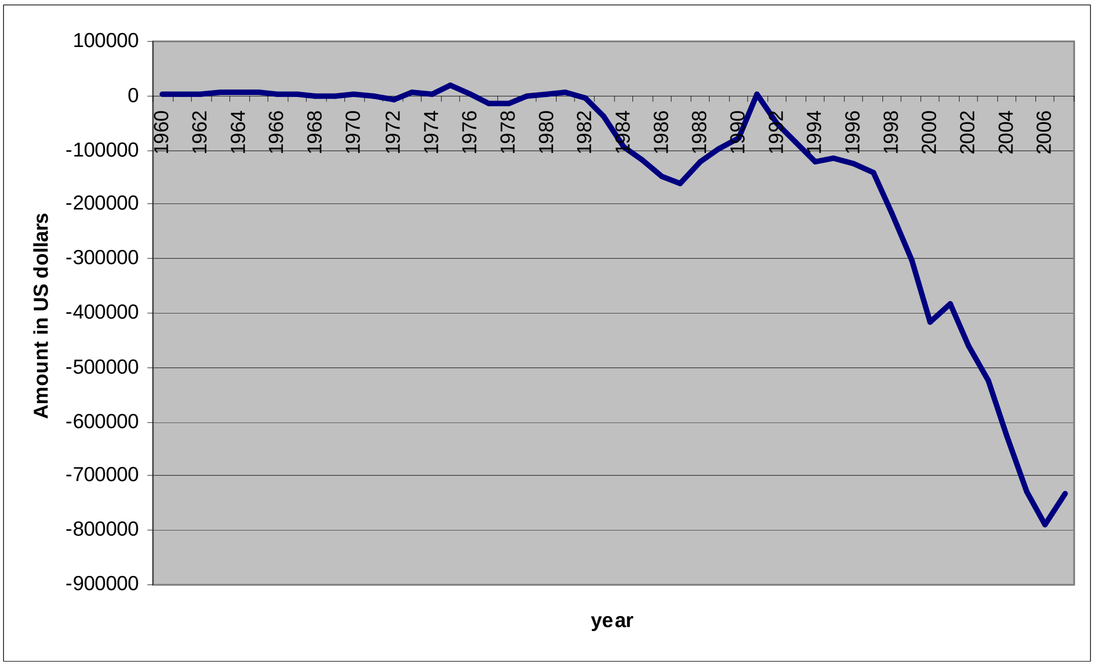
The introduction of the euro at the turn of the century and the rise of powerful Asian economies as well as the insatiable consumption appetite of America are key factors in the changing position of the dollar. Figure 1.2 seen below is evidence of the economic problems facing America; it shows the balance of payments situation for the United States from 1960 to 2007. In the years after WWII the US always maintained a small current account surplus but that has changed since the 1980s, as can be seen by the graph. It shows that the current account deficit of the United States has exploded. The

United States' trade deficit peaked at almost 6 percent of its GDP in 2006 and has scarcely improved since. This represents trouble for the US as its external debt liability grows and foreign companies and individuals acquire more US assets. Can the dollar retain its position given this growing imbalance?

Figure 1.2

US Balance of Payments, 1960-2007

(Millions of US Dollars)



Source: US Bureau of Economic Analysis

The dollar's value has also been falling in relation to other currencies. Table 1.2 below shows the exchange rate for the dollar with three other key currencies, the Chinese yuan, the euro (with the Deutsch mark as the predecessor to the euro) and yen from 1975 until the present. The rates shown are from January of each year. As seen in the table below, the dollar has been consistently losing value for over 20 years against these three other major currencies; the yuan, euro and yen. As the US economy and its currency grow weaker in comparison to other countries, the role of the dollar as the premiere international money will come into question.

Table 1.2

US Dollar Exchange Rates over Time

Year	Chinese Yuan/$	Euro(DM)/$	Japanese Yen/$
1985	-	3.125	253.2
1995	8.46	1.56	101.4
2005	8.27	.75	103.9
2008	7.29	.68	108.3

Source: The U.S. Federal Reserve

What is happening to the dollar has massive implications for the world system. In the Bretton Woods era the dollar was the international money because of its convertibility with gold, but now things are different, the status of the dollar is no longer guaranteed. If the dollar is unable to fulfill it's obligations as a world currency, the international financial system will be forced to seek new alternatives and diversify.

1.3 Research Objectives, Questions and Line of Argumentation

The primary objectives of this research are to evaluate the dollar's roles as world money and examine the causes for any change in these roles. In an attempt to achieve thes objectives, three key questions will be addressed. First, is the dollar losing its status as world money? If so, to what extent? If so, what are the causes of this?

This paper will argue that the dollar has declined in its role as world money according to both Neoclassical and Post Keynesian perspectives. Additionally, it will be argued that while the decline of the dollar has been considerable, it remains the dominant world money but its decline will likely continue. The causes of the decline will also be presented according to two schools of economic thought, the Neoclassical and the Post Keynesian. It will be argued that the causes for the dollar declining, according to the Neoclassicals, are the increasing instability of the dollar and massive increase in the money supply. The causes from the Post Keynesian perspective will be argued to be unreliability of the dollar as a settler of international debt and store of value as a result of the erosion of the American productive base. However, the Post Keynesian view on the causes for the decline of the dollar will be argued to be more valid not only because there is strong evidence of a decline in the American productive base but also because while the money supply in the US has increased, the United States has not experienced the stability damaging inflation predicted by Neoclassical economists.

1.4 Scope and Limitations

One of the challenges faced while conducting this research was related to the availability of data. While the International Monetary Fund, World Trade Organization and many national governments keep economic data, information on sensitive economic factors, such as the exact size and composition of foreign exchange reserves are kept under tight wraps by central bank authorities. Additionally, relevant data was also often dispersed or incomplete, this was particularly challenging for the trade invoicing data. Ideally, individual country data for Latin American countries would have been included, because of their unique trade relationship with the United States, but this proved impossible, however, they are included in the aggregate statistics.

Additionally it would have been better to be able to construct a more complete comparison between the rise and fall of sterling as world money and the dollar but the lack of data available made this difficult. Many international financial institutions don't keep data before 1980, data from the interwar period is especially scarce and this made it impossible to further chart the changes in sterling and compare them to the dollar. There is one study presented on the dollar and sterling in foreign reserves during this period, but ideally there would be something similar on each international function of money. This limitation may have been overcome to some degree with additional time, with more time and resources it may have been possible to find additional information in more comprehensive studies or ones conducted at the time the transition was occurring.

1.5 Approach and Methods

The approach for this research was to perform a critical literature review and apply the main arguments from the literature about how a currency becomes and remains an international money, to the case of the dollar, to determine if the dollar has declined in its international role and the causes of any decline that is discovered. This research was based on the analysis of secondary data from academics working in the field, and global financial institutions such as the International Monetary Fund and central banks.

This research was conducted using a mix of quantitative and qualitative methods. Quantitative methods, including simple graphs and charts, were used in an attempt to quantify the decline of the dollar in the various functions. Qualitative methods were used to evaluate more subjective elements of the evidence pertaining to the use of the dollar as world money, such as statements by key political leaders and the actions of central banks.

Chapter 2

Literature Review

Different schools of economic thought place more emphasis functions and therefore, on certain attributes of world money. Thus, theories abound as to why a currency is selected as the primary world money. It is, however, generally agreed that in order to fulfill these functions a world money must be able to fulfill three basic criterion. First it must be generally acceptable. In general all traders and governments must be willing to accept it as payment. It must have general acceptability. Next, the issuer must provide liquidity. There must be enough of it available to facilitate the large volume of transactions required by international trade as well as enough for governments and individuals to keep stores of it for future use. Finally, it must have a stable international value. Its value must be stable against the currencies of other stable developed economies and commodities (Nicholas 2007). This section will first discuss the Neoclassical and Post Keynesian views on the evolution of money and how it shapes their views on the important functions of money. Next, the Neoclassical and Post Keynesian views on the main functions and desirable attributes of a world money will be presented.

2.1 Theories of Money

Economists define money based on the functions it serves. Different schools of economic thought have different viewpoints on what role money is supposed to fill. Money is observed to act as a medium of exchange, unit of account, settler of debt and a store of value. The function that is deemed most important to a particular school of economic thought stems from how they see the evolution of money and has a significant impact of which attributes they feel is the most important for money to embody, these include acceptability, stability and liquidity.

2.1.1 Neoclassical Monetary Theory

As in Classical economics, in the Neoclassical view, money is seen to develop out of the barter system (Dillard 1988:314). John F. Nash Jr. identifies money as being "a technological development comparable to the wheel" and that its purpose is to facilitate “transfers of utility” (2002:4). Thus, money is an invention that serves to make transactions easier, to allow agents to transfer the utility of various items without the requirement of a double coincidence of wants. As a result of the way Neoclassicals view the evolution of money, they see the medium of exchange function as being the most important one money has, as it came first, it is the most essential. Neoclassicals cite barter exchanges in tribal societies as historical evidence to support their view that money was created in this way (Wray 1999:172, 176). This also leads the Neoclassicals to view money as being neutral, meaning it has little or no impact on market relations, as products are essentially swapped for products with money simply mediating the exchange (Dillard 1988).

Neoclassicals recognize the unit of account and store of value functions but they are seen to have been developed later, after money was already in existence and serving to facilitate exchange and are thus seen to by secondary. This viewpoint is well demonstrated by the following quote from Samuelson:

> Historically, a great variety of commodities have served at one time or another as a medium of exchange…The age of commodity money gives way to the age of paper money…Finally, along with the age of paper money, there is the age of bank money or checking deposits (Wray 199:172).

This quotation shows how neoclassical economists view the evolution of money. Commodity money gave way to paper currency and then bank money. The standardization of money leads to money adopting the additional functions as a unit of account (deposits are denominated by currency values) and store of value (for example the bank deposits referred to by Samuelson).

These new functions that the evolution of money allowed are recognized by Neoclassicals to be useful but subsequent to the medium of exchange function. Neoclassical economist, Carl Menger, refers to money as being a useful store of value in his *Principles of Economics* (1950) however, he does not view the store of value function as a way to accumulate wealth and stave off uncertainty (Keynes later picks up this line). Neoclassical economics assumes that economic actors are rational actors and have perfect information, therefore the possibility of future “uncertainty” does not factor into the analysis. Menger, therefore, does not accept the store of value function as a way to save for some future potential need but rather as a way to temporarily delay consumption decisions (Dillard 1988:312). Keynes has disputed that there was any need to hold money without recognizing uncertainty. Indeed he asked if there is no uncertainty, "why should anyone outside of a lunatic asylum wish to use money as a store of wealth?" (Rousseas 1986:22). Since neoclassical economics does not allow for uncertainty, money is held only for transactions not as a result any expectations of the value or need of money in the future (Dillard 1988:312). This is demonstrative of the reduction of the additional functions in the Neoclassical mindset and shows how the sole purpose of money revolves around the medium of exchange function.

As the exchange medium, money should have a stable value, as a constantly fluctuating value would undermine its ability to efficiently perform this task. Economic agents would stop accepting money in exchange for goods if they aren't able to derive the same utility from it that the good was valued at. This means that the control of inflation is a primary concern on Neoclassical economists, if inflation is high it makes the purchasing power of money unstable and undermines its ability to facilitate exchange because the quantity of a good that a certain quantity of money is tradable for is constantly changing. Therefore, any monetary policies should be geared at the control and reduction of inflation.

In the Neoclassical view, inflation is directly linked to the money supply. Neoclassicals believe that when individuals have more units of money that they are willing to pay more money for any given object and this drives up prices, or causes inflation. Therefore, in order to control inflation and maintain a stable currency, monetary authorities are charged with maintaining a stable money supply and contracting the money supply when inflation is too high (Wray 1999:175).

2.1.2 Post Keynesian Monetary Theory

Post Keynesians dispute the Neoclassical view that money is simply a more refined from of barter and therefore that money is a neutral feature of the financial system (Dillard 1988). They see the primary purpose of money as a way to denominate and settle debt. The Post Keynesian view on the purpose of money has a significant impact on what they view as the important attributes for a money to have.

Post Keynesians see the development of private property as the pre-requisite for the creation of money. This leads to the desire to build a surplus, as each individual is then responsible for their own security, rather than the whole society working together. The requirement that individuals must meet their own needs, leads to the necessity of credit as, inevitably, some individuals will fail to do this at some time or another. The possibility to achieve a surplus will encourage everyone to keep working past the point when their needs are met in an effort to accumulate as much as possible in an effort to ensure their own future security. When faced with shortages, private households are forced to borrow the surplus of other households and repay with some interest. "Thus the first money was created as part of a forward contract" and as the terms became more standardized, commodity money was established as a way to denominate and settle debt (Wray 1999:178-9).

"Forward contracts" or credit is central to the Post Keynesian view on money. Like Neoclassicals, Post Keynesians see the primary function of money to be the one that evolved first—they just disagree on which function that was—and while they may acknowledge other functions and even admit them to be occasionally useful, they are, nevertheless, secondary. The need for credit and therefore, money, was created along with capitalism and production-for-profit in the Post Keynesian perspective. Money is at the heart of the Post Keynesian economy, rather than in the neutral position it is resigned to in neoclassical economics.

It is the existence of uncertainty that leads to money serving as a store of value, without it "there would be no need to hold cash balances in excess of transaction needs." Money is the best choice for storing wealth as real assets are not liquid enough to allow for immediate use (Rousseas 1986:22). The necessity of credit in a production for profit economy and the possibility of shortfalls that it creates, provides for the possibility that those who now have a surplus will later have a shortfall. This leads to the hoarding of money for future use—not just as a way to temporarily delay consumption choices. This perspective was advanced by Keynes himself and also other Keynesian economists (Dillard 1988: 312-313). While money's function as a settler of debt remains the most important to Post Keynesians, money as a store of value for future uncertain needs is consistent with their view and also seen to be a useful function of money.

The different view Post Keynesians have on the main function of money leads them to favor different attributes in a currency. Since Post Keynesians see credit as the most important monetary function, they see adequate liquidity as the most important attribute of a currency. If it becomes difficult to obtain credit, money is unable to do its job and the economy suffers. "If there is a shortage of liquidity relative to demand then economic activity may be discouraged, output and employment may fall" (Dow 1999:167). If the money supply is not sufficient, businesses will have trouble borrowing and economic activity will be discouraged and therefore output and employment constricted.

2.2 Theories of World Money Selection

In this section, the functions a world money should perform and the attributes it should possess will be discussed. The viewpoints of both Neoclassicals and Post Keynesians will be presented. The section will highlight both the points of agreement between the two schools, as well as the divergences. It is required of world money to be generally acceptable, stable and provide liquidity. However, as Neoclassicals also tend to place greater emphasis on certain functions, and they, therefore, view some of these attributes to be more fundamental, while Post Keynesians stress others.

2.2.1 The Acceptability Criterion

The acceptability criterion is the main point of agreement between Neocalssicals and Post Keynesians. This requirement of international money is important for both the medium of exchange and settlement of debt functions of money. For a money to be used as a medium of exchange it must be generally accepted by a wide variety of economic agents for a wide variety of commodities and products. Likewise, it can not be used to settle debt if the issuer of debt does not agree. In order for the issuer of debt to agree to accept a money for future repayment, they must be confident that they will be able to use this money again well in to the future, that other agents will in turn accept it. This attribute is therefore important to both schools of economic thought, therefore attributes that both schools see as important are related to the acceptability of money.

Moneys issued by larger economies are seen to be acceptable to more economic agents. It stands to reason the world's largest economy or economies, as the case may be, would have the greatest level of influence over world trade and capital flows. If an economy is sufficiently larger than those of other developed countries it could almost impose its currency on the rest of the world by fiat. It could only accept transactions in its own currency and by so doing impose its currency on all of its trading partners. The trading partners would be forced to accept this because they would be unwilling to forgo trading with this economic giant regardless of the terms they must accept to do so.

This has been demonstrated via economic modeling by Matsuyama, Kiyotaki and Matsui. They state that a large home country would provide both home and foreign agents a greater incentive to accept the home country's currency. Acceptance of a currency as payment hinges on a belief that another will in turn accept it from you in the future, the more an agent believes this the more likely they are to accept a particular currency. Therefore the larger a country and its economy are, the more likely that an agent will again engage in business from someone from this country or economy and the more likely an agent will be to accept its currency because the agent will have a higher expectation of being able to use this currency in the future (1993:284).

Both Neoclassical and Keynesian economists can see the advantage of trading in the currency of a large economy. The more agents that engage in business with this large economy and begin accepting its currency the more other agents are interested in doing so. As stated by Marc Flandreau:

> One tends to favor the currency of one's main trading partner. As a result, the utility of using one given currency is an increasing function of the number of agents that have adopted it. There is thus a trend towards the adoption of one single currency. (1996:882)

This is a type of snowball effect. There exists one large economy in the world and thus other nations trade with it in large volumes. They then adopt a preference for trading in this country's currency because they are already doing it and it's convenient. As more countries trade with this large economy and begin using its currency, more countries will begin doing so until it becomes a standard.

The volume of trade and capital flows in and out of a country is also seen by both Neocalssicals and Keynesians as playing a role in which currency becomes internationalized. A large economy may not be an open one or heavily involved in world trade. Larger countries with larger economies have a greater capacity to produce all of their needs domestically, even with certain economies of scale advantages and thus may not necessarily be the most integrated into the world economy. The volume of trade and capital flows is an indication of how integrated a country is into the economic system, which is an important factor in a currency becoming internationalized. This is also linked to the acceptability criteria in the same way as economic size. The volume of a country's trade and capital flows indicates the likelihood that an agent will do business again with an agent from this economy and like economic size, higher volumes of trade and capital flows would increase this likelihood and would therefore increase the expectation that the currency would be accepted again in the future.

Political stability is also an important factor for acceptability. A country that is politically unstable will not become the issuer of a leading international currency regardless of other attributes, such as economic size. Additionally, political volatility would likely be expressed in an unpredictable monetary policy, damaging the stability of the national currency. Moreover, political turmoil erodes business, consumer and investor confidence, damaging the strength of the economy and as a result, the domestic currency.

Political instability is also cited as a reason for currency unions to be at a disadvantage. The currency issued by a currency union is seen as less stable because it is not controlled by a single political entity but rather a coalition of political entities, which will almost certainly, at times, have divergent interests, this has been pointed out in regard to European Union and the euro (Tavlas 1998:49). Even if there is the existence of a single monetary authority it will be forced to consider the needs of multiple economies which may have different inflation concerns and liquidity needs.

2.2.2 Neoclassicals and International Money

The Neoclassical view of international money, like their view of domestic money, is derived from the barter paradigm and the medium of exchange function is likewise stressed (Wray 1999:173). Neoclassicals, therefore, see stability of value as being the paramount attribute for an international currency because money must have a stable purchasing power in order to be a reliable medium of exchange. Stability of value means that there should be a low inflation rate in the domestic economy that issues the currency that becomes internationalized both in order for it to become and to remain the primary international currency.

Sudden expansion of the money supply is cited by Neoclassicals as being inflationary and as destabilizing the price level. This is given as a reason for the collapse of bimetallism and silver standards in favor of the gold standard in 1870. Increasing silver production combined with Germany's decision to demonetize silver would flood the market with silver and undermine its value (Flandreau 1996:863). The rapid expansion in the supply of silver would cause an influx in the money supply, which in the

Neoclassical view leads to inflation, thus gold became the only precious metal that remained a viable, rational choice to back paper money, and countries, as a result, moved to gold standard.

The gold standard (or commodity based money) is favored by Neoclassicals because they favor a stable money supply and feel that when the currency is linked to gold it prevents expansion of the money supply, therefore controlling inflation according to their view. Neoclassical economists, including Ronald McKinnon, have observed that the prices are more stable overall when the international financial system is using some kind of gold standard. McKinnion has specifically stated this in regard to the Bretton Woods gold-dollar standard (Davidson 2005:3-4).

Neoclassicals also look to instability as being the reason that sterling was replaced as the leading international money after World War II. From World War I onward, instability plagued the British Pound. The currency went off and on the gold standard, as United Kingdom struggled to maintain convertibility at prewar levels, despite wartime inflation. The pound's value plunged, dropping $.68 in 1939 alone (Katz 1954). The pound's declining value, as well as its inability to maintain its parity with gold, are both indicative of the unstable behavior that Neoclassicals cite as being the cause for the pound to lose the position as the international currency to the dollar.

Neoclassicals also see the selection of international money to be a "market-driven process" (Tavlas 1998). As the medium of exchange function dominates over the other functions of money, there is a substantial benefit to having only one international currency because it is more efficient and leads to substantial transaction costs savings. The market will select the currency that is deemed to be the best—a currency that has a good inflation record, is issued by a stable government with strong institutions and well developed financial markets and a large share of world trade (Tavlas 1998).

2.2.3 Post Keynesians and International Money

The Post Keynesian view of international money is likewise related to their take on domestic money. Thus, they once again favor liquidity and see it as being the most essential characteristic of an international money and a reason why a money is selected for international use. In the domestic economy there is only one money but in the international context, there are many and according to Keynesians, the most liquid of these will be chosen (Dow 1999:154-155).

However, for world currencies, Post Keynesians are also interested in the size and strength of the productive base of the issuing nation. They see this as being tied to acceptability; the economy must have a strong productive base to support the large quantities of its currency that are needed in circulation for it to be the world currency. Additionally, the productive capacity of a nation is important in maintaining economic and political power (Straka 2005). The production of goods and services also creates a demand for a nation's currency (because of the demand for its exports) and this reinforces its future acceptability.

Post Keynesians also argue against the control of international money being in the hands of only one country. This allows the issuing county to exploit the benefits associated with issuing international money for their own gain. Post Keynesians would prefer that world money was issued by an independent monetary authority, as was originally suggested by Keynes at the Bretton Woods conference, or at least a few competing world moneys issued by a few different national governments. Neoclassical economists contend that there is room for only one international money at any given time, however, this is hotly disputed by Keynesians.

For empirical evidence to support their view on the importance of liquidity, Post Keynesians look at the failure of the gold standard. Post Keynesians see the inability of the gold standard to provide adequate liquidity as the primary reason for its collapse. When gold convertibility was temporarily suspended during World War I, the wartime governments printed money to finance their war activities. During the interwar period, when the world's economies began to resume their normal output levels, gold production was inadequate to allow for the expansion of the world economy as gold output had been steadily declining since 1915 (Eichengreen and Flandreau 2008:7). The inability of gold production to keep pace with the expansion of the world economy is seen by Post Keynesians as being the major problem with the gold standard and commodity based money, in general.

The Post Keynesian view on the collapse of the gold standard is demonstrative of their view on the organization of world money and money in general. Liquidity is the essential ingredient. If the economy isn't supplied with adequate liquidity to allow for credit creation, investment and therefore growth, economic activity will be depressed, the economy will suffer and the world will seek a new international currency standard. They dispute that increases in the money supply automatically leads to inflation. They also dispute the evidence presented by Neoclassicals that prices were more stable while operating under a gold based system. For example, while Neoclassical economist McKinnon has stated that the price level was more stable while on the Bretton Woods system, Post Keynesian economist Paul Davidson has argued that this is not a result of the dollar being tied to gold but rather because creditors nation accepted the responsibility of adjusting current account balances (Davidson 2005:4).

Post Keynesians also cite historical evidence to support their view on the importance of the size and strength of the productive base of the country that issues world money. Prior to the outbreak of World Wars I and II, the United Kingdom had the strongest economy in the world, supported also by its international empire and sterling was the world money. Sterling enjoyed universal acceptability prior to 1914 (Katz, 1954). However, the wars destroyed the production base of the UK and indeed all of Europe. The United States manufacturing sector boomed during this time period as it was producing implements for the war in Europe. Afterwards, it was the only economy left undamaged with a strong industrial productive sector and the dollar rose to become the leading world money, replacing sterling (Straka 2005).

2.3 Studies of International Money

There exist many studies of international money, in an attempt to determine the reasons that one international currency gives way to another. There are also several studies on the dollar that not only predict but look for reasons of its future collapse. In this section some of those studies are reviewed. Please note that while this section contains many references to the different ways the international monetary system has been governed in the past, it is not intended to provide information on how this system has evolved to its present position, rather only to present some of the studies pertaining to international money. A more thorough treatment of how the current international monetary system has arisen takes place in chapter 3.

A fairly comprehensive study has been conducted by Eichengreen and Flandreau on the transition between the dollar and sterling as the leading reserve currency. It tracks the dollar and sterling levels in the international reserves in many different countries and regions from the early 1920s until the 1940s. They found that the dollar and sterling essentially alternated as the leading reserve but that both of them were substantial players during this period. They also analyzed factors that caused the proportion afforded to each currency to change. Politics—the influence the issuing country had over a specific region or wielded at a specific time—was important, as well as the depth and liquidity of the country's financial markets (Eichengreen and Flandreau 2008).

Their study challenges earlier accounts of the dollar-sterling transition, especially Triffin's, which claim that the dollar took the lead much later, in the 1930s, and that there was no flip flopping back and forth. Their findings also dispute the claim by many that France was a significant player, in third place. While the French Franc also played a role; it was much more minor. The authors concluded that while there isn't room for an unlimited number, there is room for more than one international reserve currency—more than one international money. The authors extend their analysis to the present day situation and the dollar-euro competition. They state that their evidence shows when there is an alternative reserve asset, "issued by a large economy possessing deep and liquid financial markets" a "sharp shift in reserve composition" is not out of the question (Eichengreen and Flandreau 2008).

Mariana Whitman studied the dollar during one of its earlier times of crisis, in the early 1970s, when the United States had just come off the gold standard. Whitman considers the changing position of the US economy within the world economy and notes, among other factors, the significant decline in the United States' share of world GNP. However, she found, somewhat paradoxically, the dollar's role in international transactions was expanding during this time and saw this as an unstable situation. Whitman concluded that there was too much asymmetry in the international financial system and saw this as a cause of instability. She argued for a more symmetrical treatment of national currencies, for more than one currency to share the key functions of international money (Whitman 1974).

Richard Duncan has also written a comprehensive account, of the dollar in his 2003 book, *The Dollar Crisis*, and the structural weaknesses of the US economy and indeed, international monetary system, that he claims will eventually lead to the complete collapse of the dollar and corresponding restructuring of the international monetary order. He analyzed the current account position of the United States to conclude that the value of the dollar must crash against the currencies of virtually all major US trading partners but especially those that have large trade surpluses with the United States. Duncan sees the world economy and the export-led growth schemes of many countries, as being dependent on the US continuing to run current account deficits and surplus countries continuing to purchase US debt instruments, a pattern that is inherently unsustainable. In this way, the declining productive capacity of the United States and growing current account deficit is, in his view, the major reason the dollar must collapse, and as a result, be replaced as world money.

Chapter 3

Background

This section will comprise a brief history of world money and look at the dollar as world money. It will begin with history of the gold standard and the British pound's reign as the main world currency. Then it will explore the various uses of the dollar beyond those as the national currency of the United Sates. How the dollar has been used and is being used now is essential in assessing its current and future role as world money. Additionally, the changing value of the dollar against other currencies and gold will be considered as a way to establish a price or value for dollars and to determine its relative stability.

3.1 History of World Money

This section is intended to provide some factual information on the formation of the current international monetary system. It begins with some information on the rise of the gold standard and then later presents the transition from the sterling standard to the dollar standard at the end of World War II.

The gold standard got started in 1717 when London's "Master of the Mint," Isaac Newton, tied sterling to a set quantity of gold (Nash 2002:5). However, the international gold standard did not come into full force until the 1870s (Flandreau 1996:862). Despite some countries having already been operating on the gold standard for a long period, many countries, including, leading industrial nations were using either a silver standard or some form of bimetallism until the 1870s (McKinnon 1993:3).The emergence of the international gold standard came from the need to have a common standard as a result of growing international trade but many countries had hesitated to make the move to gold because of the high switching cost. There had to be some method to get rid of demonetized silver without suffering too high of losses and funds available to purchase additional gold reserves, however this barrier was eventually overcome and the international gold standard was born (Flandreau 1996:864).

The international gold standard overlaps with the sterling standard as during this time period the British pound enjoyed preeminence among all the gold-backed currencies. Until 1914 sterling enjoyed universal acceptability and was thus favored for international transactions. Many nations also maintained close trade and monetary ties with the United Kingdom (Katz 1954:81). Additionally, practically every country was keeping their foreign exchange reserves in London, as it was the primary trading center at the time. Their balances fluctuated based on the status of their accounts—increasing when they had a balance of payments surplus and decreasing with a deficit (Paish 1952:323).

However, with the outbreak of the First World War, things changed virtually overnight. European countries were forced to suspend convertibility with gold to allow for more monetary flexibility while fighting the war and the gold standard collapsed. This and the subsequent instability of sterling and the British economy, put the position of sterling at risk. The UK attempted to restore the international position of its currency after the cessation of hostilities in 1918 and by 1925 its prewar gold parity had been restored and Great Britain had almost the same volume of foreign assets as before the war but it came at a great cost to the domestic economy, which was at risk of deflation (Katz 1954:81).

Nevertheless, a subsequent abandonment of the pound's gold parity in 1931 caused a further deterioration of the sterling standard. To make matters worse from August of 1938 to August 1939 the value of the pound fell $.65, as a result, at this time most of the non-British countries opted to ease their ties to the pound. After the Second World War the pound failed to fully recover and was plagued by economic crises in 1947, 1949 and from 1951-2. Instability became the defining feature of sterling in the post war years and the dollar's replacement of sterling became complete with the signing of the Bretton Wood's agreements (Katz 1954:81-82).

The Bretton Wood's agreements institutionalized the dollar standard. The dollar was the only currency convertible with gold to the ratio of 35 dollars per ounce of gold. Under the Bretton Woods system the dollar was given a special status but was also required to fulfill certain additional obligations. While the Bretton Woods treaty was not intended to put the world on a fixed-dollar exchange rate, it very quickly evolved into one. To a large degree, countries held their exchange rates to the dollar, Japan, for example, held the exchange rate at 360 yen to the dollar for over 20 years. The United States was required to remain passive in foreign exchange markets, while allowing other countries to manipulate their exchange rates in order to meet their balance of payment and (dollar) reserve objectives. The United States was also expected to maintain the position of international creditor, for dollar denominated borrowing (McKinon 1993).

Additionally, when gold failed to keep pace with global liquidity needs, dollars filled the gap and subsequently "became the major source of growth in international reserves in the postwar period" (Whitman 1974). Eventually this put strain on US gold reserves and the system gave way to the current system of floating exchange rates when the United States unilaterally removed itself from the gold standard in 1973 (McKinnon 1993).

3.2 Uses of the Dollar

Since the post war period the dollar has been used extensively for international transactions, virtually all trade with the United States, one of the world's largest economies, has been invoiced in dollars. Additionally, the dollar has been used a significant amount for the invoicing of Asian, Latin American and even a portion of European trade. The dollar is used more for trade invoicing than any other currency and is also the most traded currency (Kamps 2006:40, VOA News 2006).

International debt is largely denominated and settled in dollars, even if the debt is not held by US residents, firms or the government. An astounding 44 percent of outstanding international bonds are held in dollars (Middeldorp 2007: 5). Most of the substantial external debt owed by the United States is also in dollars (McKinnon 2003:3). The external debt of emerging economies is also commonly denominated in dollars, for example, 52.8 percent of India's foreign debt is denominated in dollars (Thaindia 2007).

The dollar is also used for almost exclusively for the trade of many important commodities. Oil, for example, is only traded and priced in US dollars. The New York and Chicago exchanges are the key trading centers for many standard primary products, including homogenous agricultural commodities, like wheat (Tavlas 1998:48). Commodity trading is important because even in highly developed economies, like those of Western Europe, a large volume of trade is still in standardized goods (Middeldorp 2007:3). As a result of commodity trade being conducted primarily in dollars, many prices are also quoted in dollars around the world and this leads many traders to have a familiarity with the currency and in turn stimulates dollar trade invoicing and the foreign exchange market for dollars and is one reason why such high volumes of trade are conducted in dollars. If prices for commodities are quoted in dollars they are also often paid in dollars, even when the United States is not involved in the buying or selling.

Not only is the dollar used extensively for commodity trading, it also is used to store value. First it comprises a large component of international foreign exchange reserves. Using dollars as a foreign exchange reserve was only natural under the gold dollar standard because it was essentially the equivalent of holding gold. Since the end of the dollar-linked gold standard, the main criteria for maintaining the dollar as an international store of value, has been the strength of the US economy and productive base relative to other economies.

Table 3.1
Dollarization in Latin America
Dollar Deposits in Various Countries

Country	Percent dollars
Argentina	64.7
Bolivia	92.5
Chile	12.5
Costa Rica	45.7
Ecuador	Fully Dollarized
El Salvador	Fully Dollarized
Honduras	23.2
Mexico	4.9
Nicaragua	72.8
Panama	Fully Dollarized
Paraguay	63.6
Peru	70.0
Uruguay	90.0

Source: Katz 2000, Steil 2007, Berg et al. 2003 and Quispe-Agnoli 2001

Private individuals also save in dollars. Aside from US domestic savings, many individuals around the world keep their savings in dollar denominated deposits. Like official government reserves, a low inflationrate makes savings in dollars a safe investment, safer than many other national currencies. In many Latin American countries dollar denominated deposits comprise over 50 percent of bank deposits (Steil 2007). However, as can be seen in the table above, in some countries it is much higher, 70 percent in Peru and in Uruguay it is 90 percent (Katz 2000, Steil 2007).

Another international use of the dollar has been as a substitute for national currencies in developing economies prone to currency and general economic instability. When the dollar is used to replace the national currency it is referred to as dollarization. There are two types of dollarization—"spontaneous dollarization" and "full" dollarization. Spontaneous dollarization is when the dollar is used for transactions in a country alongside its domestic currency (Berg and Borensztein 2000:38). Spontaneous dollarization occurs as a citizen response to economic instability but is not a part of any official government policy. Whereas, full dollarization is the complete replacement of the national currency by the dollar for all transactions as an official monetary policy and the national currency ceases to exist (Berg and Borensztein 2000:38).

Dollarization is not a recent phenomenon; Panama adopted the US dollar in 1904 after gaining independence from Colombia (Quispe-Agnoli 2001). Dollarization regimes remain in place in many countries as successful monetary policies and more countries have dollarized in recent years, the have been encouraged by countries, like Panama that have managed to avoid economic turmoil as many of their neighbors have suffered. Panama has had stable output and prices. More recently Ecuador adopted a dollarization policy. In 1999 the Ecuadorian economy collapsed—GDP contracted, inflation was 50 percent, the currency rapidly depreciated and bank deposits were frozen. Dollarization came to Ecuador the following year. Continuing the trend El Salvador also adopted a dollarization policy in 2000 (Quispe-Agnoli 2001).

The phenomenon of dollarization has helped to solidify the dollar's status as an international currency. Dollarization also reduces dollar liquidity as it expands the use of the dollar into the domestic sphere of economies outside the United States. It also demonstrates the dollar's stability vis-à-vis other currencies. The precise reason that dollarization occurs is because the dollar is stable and other countries have difficulty maintaining long term currency stability, to the degree that some countries have foregone it as an impossibility.

3.3 Price of the Dollar

Stability of value is a key concern for any world currency because central bankers and individuals must be confident that the currency will retain its current value, that it is a good long term store of value. Two considerations are important for this, first, as mentioned earlier, the inflation rate of the issuing economy and its trading value vis-à-vis other currencies and especially those of other strong economies.

The price of the dollar has become more unstable in recent years. It has been steadily losing value against other key currencies. For example, in 2002 during the early days of the euro, it was trading at almost 1:1 with the dollar but now a single euro commands around $1.50 or more. The dollar has also lost ground with the British pound which now trades at almost two dollars per pound compared to about $1.50 in 2002 (IMF). This year the dollar has also dropped below 100 yen for the first time since 1995 (BBC News 2008). Refer also to table 1.2, a chart on the dollar's value, which shows that dollar has been on a steady decline for many years. The currencies of large, developed economies are counted on for their consistent values. If the world's leading currency isn't able to maintain a stable value against those of other stable, developed economies it creates uncertainty in the system as a whole.

The decline in the dollar's value against the currencies of other developed economies raises concerns about the long term viability of holding savings and denominating debt in dollars and encourages both central bankers and private individuals to diversify their holdings and increase the euro, pound and yen components while decreasing their dollar holdings.

Chapter 4
Analysis

4.1 Decline in the Uses of the Dollar

In this section the main theories from the literature that have been presented will be applied to the case of the dollar in an attempt to answer the research questions. The changes in the international uses of the dollar will be presented, followed by an assessment of the extent to which the dollar has declined in its international use. Finally, the causes for this decline will be analyzed from both the Neoclassical and Post Keynesian perspectives.

As an international money the dollar should be used for several different international functions. This section will look at the dollar's use for different types of international transactions over its reign as an international money, including its use as an invoice currency, denominator of commodity trade, store of value and denominator of debt.

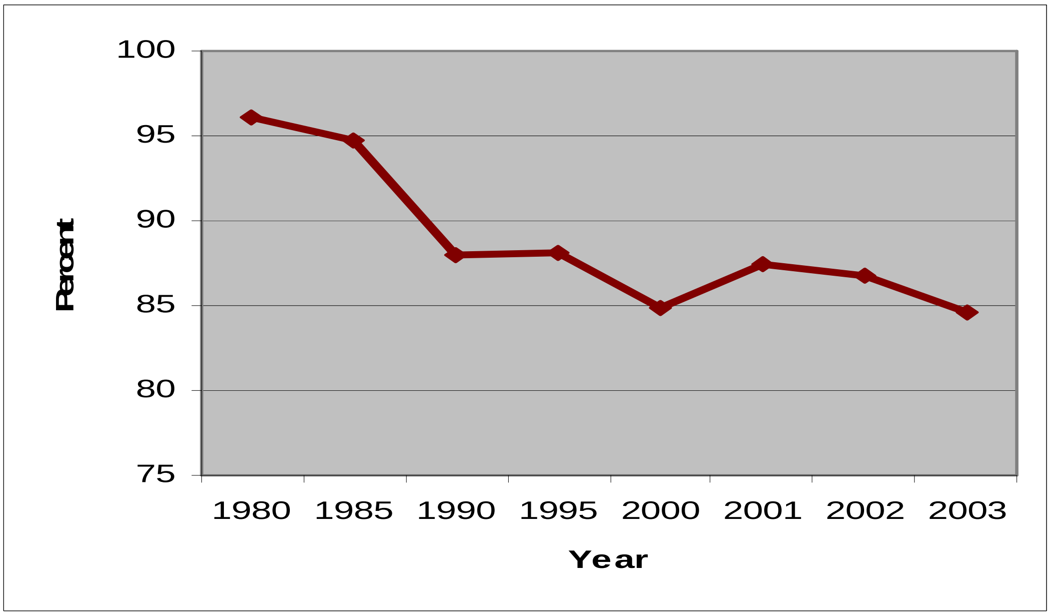
The dollar remains strong as a medium of exchange. It is the primary currency used for the invoicing of international trade. Using the dollar as a medium of exchange is supported by the size and technological sophistication of the US financial markets. This is a significant advantage to the dollar in maintaining this role over other currencies. While the recent financial crisis has definitely taken its toll, the financial markets in the US remain larger than any others in the world. The financial markets of the United States are broad, containing an array of financial instruments and deep, having a lot of secondary markets (Tavlas 1998:47). US banks also have a higher degree of technical sophistication than those in other countries (Wachtel 2003). The size and sophistication of the financial markets and banks available to an international currency are important for the medium of exchange function. Huge volumes are traded every day in international moneys and the markets available must be capable of handling the volume. This is especially an advantage of the dollar vis-à-vis the euro, as the markets of the European Union are more fractured, split between several different trading centers and the largest EU trading center, in London, uses another currency. While the US financial sector has been the hardest hit in the recent crisis, it would take years for the banks in Europe or Asia to become competitive in this arena.

However, there are signs that the dollar's use as a medium of exchange is under threat. The dollar's use as an invoice currency has been decreasing in some regions. While the limited availability of data makes it impossible to chart the dollar as an invoice currency over time, ideally from when it first began to challenge sterling, the information available shows that the dollar is still a top invoicing currency. First, around 90 percent of trade with the US is invoiced in dollars, whether exports or imports (Kamps 2006). Although, there are indications, that euro invoicing has increased beyond what was previously done in legacy currencies at the expense of the dollar. This is primarily apparent in EU candidate countries.

Data available for Asian countries is mixed. In Indonesia and Malaysia the dollar's use as an invoice currency has increased through the 1990s, in Japan it held more or less steady but in South Korea and Thailand it has decreased (Kamps 2006). The most complete data available is for South Korea back to 1980. It shows as dramatic decrease in the use of the dollar for the invoicing South Korean exports and imports. In the 1980 the dollar was used for invoicing over 90 percent of South Korean trade but has since fallen to barely 80 percent of exports and less than 80 percent of imports. Refer to the graphs below.

Figure 4.1

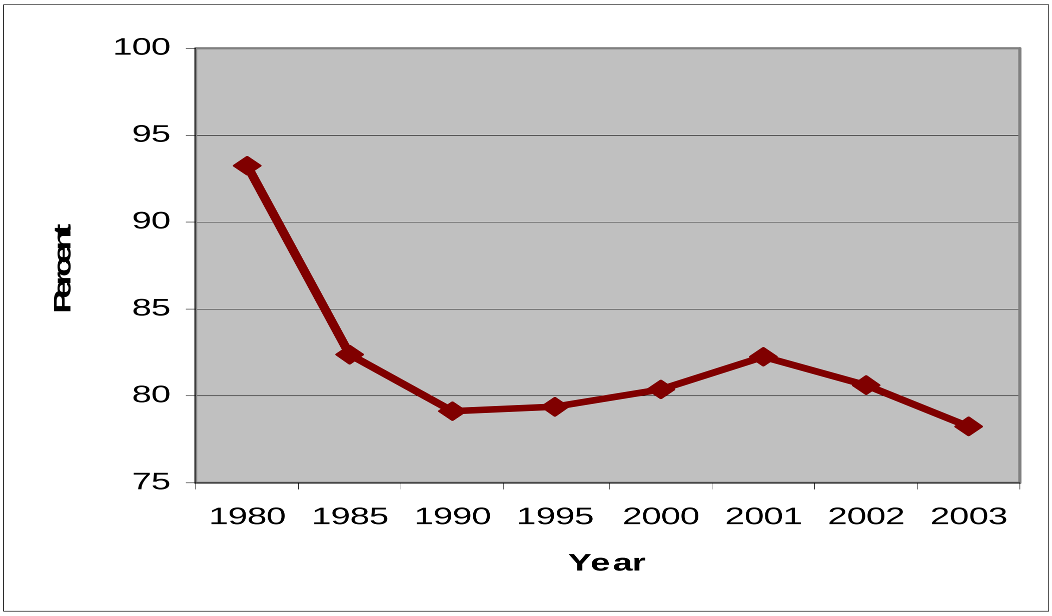
Dollar Invoicing in South Korean Exports



Source: McKinnon 2004

Figure 4.2

Dollar Invoicing in South Korean Imports



Source: McKinnon 2004

However, while the dollar share of trade invoicing is falling in the European Union's boarder zone and some places in Asia it is still used more than any other currency. Additionally, while country specific data for Latin American countries was unavailable, the dollar is likely still the dominate invoice currency there because of their strong trade and close geographical relationships with the United States.

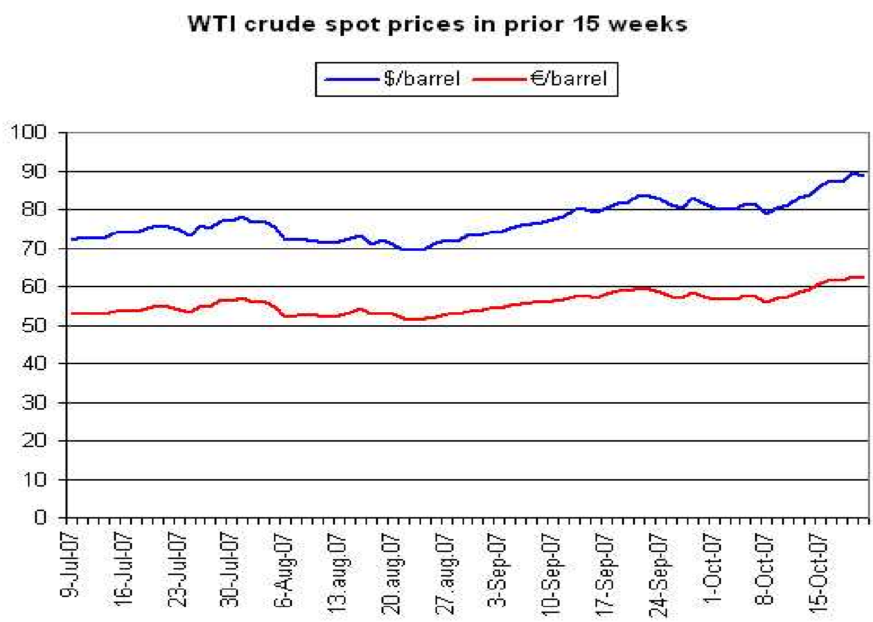
The dollar's use for the trading of commodities has also come into question. Commodities are largely priced and traded in dollars and this trade in standardized products is important because it represents a large portion of international trade and is therefore part of the dollar's responsibility as the international medium of exchange is to be used for this type of trade (Middledorp 2007). The prices of basic commodities need to remain stable, as businesses rely on this when determining their own prices. If the price of the dollar is continuously fluctuating the prices of commodities are continuously changing and it raises questions as to the use of the dollar in commodity trading.

The constantly changing price of oil is particularly becoming an issue. There have been rumblings from oil producing countries about switching the pricing of oil from dollars into euros. Both Iran and close US ally, Saudi Arabia, have contemplated the move into euros and both are top world oil producers. Furthermore, Russia's Vladimir Putin gave several clear indications that Russia, the world's second largest oil exporter, would be open to changing its oil sales from dollars into euros. Putin first brought up the proposal in 1999 when he was Prime Minister but hasn't let the issue drop. Granted, most of Russia's oil is traded to Europe but it would still represents a substantial loss to dollar denominated trade and more importantly it could lead other countries, especially those with tensions with the US, like Iran, to follow suit (Belton 2003).

Dollar trading of commodities has come under threat not just because of politics but because of the fact that prices have been more stable in euros than in dollars. For example, oil prices have been more stable in euro prices than in dollar prices. Below are two graphs showing the oil price from early July 2007 to October 2007. These graphs can serve as a small snapshot of what has been happening on a larger scale over the past few years. The first graph shows the variation of the price of oil in dollars and euros. The dollar price fluctuates almost twice as much as the euro price, in a range of about 20 dollars compared to about a 10 euro range. The second graph is perhaps even more telling as it shows the changes as a percent of the total price. The two price moves more or less in synch until the price begins to increase more rapidly at the beginning of September 2007, then there is a huge spike in the percent dollar increase and while the euro price also increases, the increase in terms of the percent of the total price is much less dramatic. Thus, while there have also been increases in the euro price of oil, the euro price has been more stable than the dollar price.

Figure 4.3

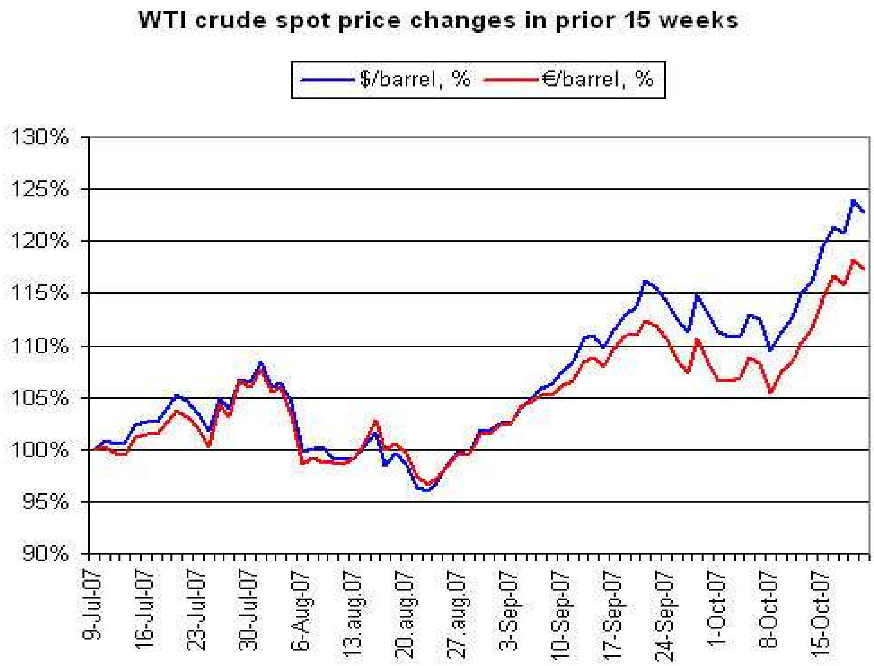
Oil Prices in Dollars and Euros



Source: European Tribune

Figure 4.4

Oil Prices in Dollars and Euros, percent change



Source: European Tribune

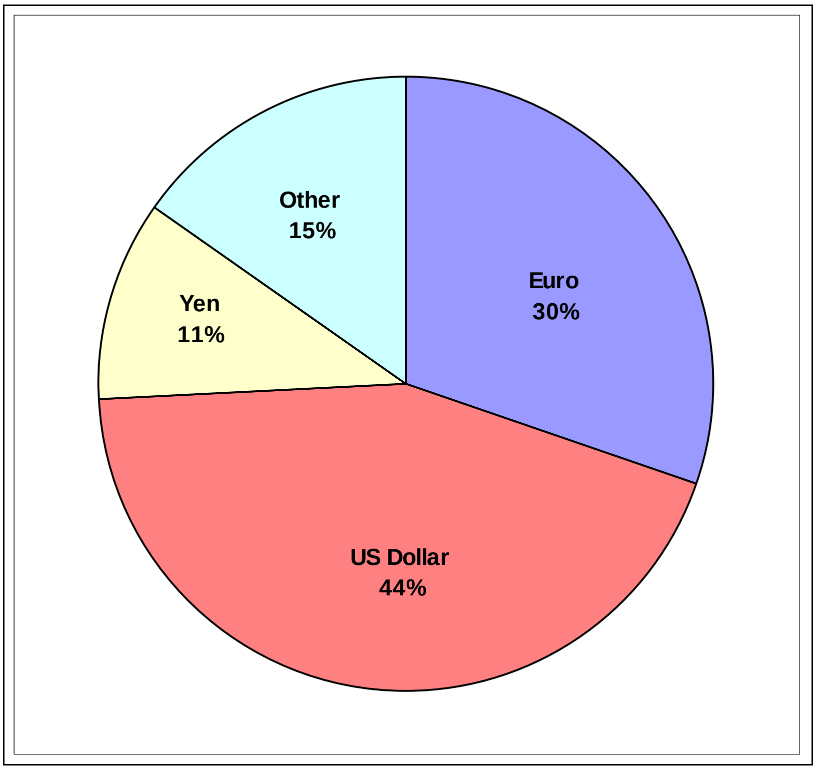
The pricing of oil in dollars is important for a multitude of reasons. First, the energy trade is one of the largest and most important in the world, therefore trading oil in US dollars not only represents a large volume of trade invoicing but also lends a great deal of prestige to the dollar. Additionally, it means that a plethora of traders around the world are already dealing in dollars so they are more likely to price other things in dollars both because of familiarity and because they can derive transaction costs savings by conducting all of their trade in the same currency.

Most importantly, is that the payment of such an essential commodity in dollars ensures that they will always be a market for dollars. When considering the acceptability criteria, the assurance of future acceptability is key for current acceptability. This is essential for not just the dollar but all paper currencies. If oil was suddenly priced in another currency it could signal the beginning of a flight from the dollar into the euro.

Another important function for international money is the denomination and settlement of international debt. As discussed in section 3.2, more international debt is denominated in dollars than in any other currency. However, the chart below shows how the use of the euro has grown in issue of international debt securities. In 1996, the dollar share accounted for 75 percent of external bond issues; the euro has now taken over part of the dollar share as can be seen in the chart below (Tavlas 1998). The dollar share now only accounts for 44 percent of external (issued by non-residents) bond issues. The dollar retains only a slight lead as the denomination currency in international loan (loans issued to non-residents) markets. The dollar share is 46 percent with the euro close behind at 37 percent.

Figure 4.5

International Debt Securities by Currency, 2004



Source: Faruqee 2004

The denomination of official debt is in dollars is also being questioned to greater and greater degrees. It has been observed that the United States enjoys an almost "unlimited line of credit with the rest of the world" because it has the power to print the dollars that its credit is denominated in (McKinnon 2003:3). Additionally, as the value of the dollar has changed vis-à-vis other major international currencies, some countries have watched their dollar debt grow. India's debt, over half of which is in dollars, for example, has increased significantly as the dollar's value has fluctuated and it raises questions about the need to diversify the denomination of the country's debt to prevent future vulnerability of currency mismatch (Thaindian 2007).

The dollar's use as a store of value has also been suffering as the value of the dollar has fallen (see table 1.2). The graphs below tell the story. While it's true that dollar reserves have declined from their peak in the mid-1970s, they remain high at about 65 percent of world reserves, making dollars by far the largest component of world reserves (Losing Faith 2007). This means that for the time being at least central bankers are comfortable holding dollars. Although, it also means if the dollar becomes more unstable and questions as to its long term viability rise, they will become more nervous because dollars represent such a large component of their reserves, exaggerating the impact of a collapse. This will become particularly acute in Asia—where two of the largest dollar holders reside, China with $1.4 trillion and Japan with almost 1 trillion (Losing Faith 2007).

Figures 4.6 and 4.7

Source: Time to Break 2007 Source: Losing Faith 2008

The impact of this is already starting to become visible. Many countries have already begun taking steps to move away from the dollar. Several Asian countries have softened their currencies' links to the dollar and moved toward diversifying their reserves. China made its first move to distance its currency from the US dollar in 2005. It dropped the policy of linking the Yuan (China's currency) directly to the dollar and instead is now using a basket of various, officially undisclosed currencies. At the same time it allowed the state-set exchange to appreciate marginally against the dollar (since then is has been allowed to appreciate more as China combats inflation) from 8.11 Yuan to the US dollar to 8.277. This is significant as the rate had not been allowed to move for a decade. Malaysia quickly adopted a similar policy, and delinked its currency from the dollar in favor of a basket of currencies (MSNBC 2005).

There have also been calls for the Gulf States to end their dollar pegs. Almost all of the oil-endowed Gulf states peg their currencies to the dollar, but the falling dollar and soaring oil prices has been causing inflation in their economies. Some smaller Gulf economies have seen inflation rates up to 10 percent. One country, Kuwait has already shifted to a currency basket. As economic pressure mounts, the others will have to take action, however, the impact on the dollar could be catastrophic. It would likely exacerbate the plunge of the dollars value and nervous investors are likely to panic causing even more problems (Time to Break 2007).

Asian countries have also been moving toward diversifying their foreign exchange reserves away from dollars. In the first six months of 2002 China, Taiwan, Hong Kong and South Korea accumulated 66 billion US dollars in foreign reserves but they have slowed or even completely stopped using this money to buy US securities, of which they were previously the major purchasers. North-East Asian banks were at one time financing 20 percent of the US current account deficit. Instead they have been diversifying their reserves to include, among other things, more Euros, which has played a role in driving up the Euro's value, but also Australian dollars. The People's Bank of China (the Chinese central bank) is known to have become a major buyer in the Australian markets (Garnaunt 2002).

The storing of individual's private savings in dollars is also an important international role of the dollar. Certainly many banks worldwide still offer dollar denominated accounts and deposits remain high, recall the data presented earlier about high rates of dollar deposits in Latin America, 50 percent or even more in some countries (Steil 2007). However there is evidence that dollar deposits have been falling in other places, South Korea, for example. The Bank of Korea reported that in only one month, June 2008, US dollar denominated savings fell 1.9 Billion. US dollar savings still amounted to some 15.7 billion dollars, down from almost 17 billion in September of 2007 (China View 2008, Korea.net 2007). Although, dollars still comprised the largest component of foreign currency savings by South Koreans (China View 2008).

These actions taken by central bankers and the choice of some individuals to reduce their dollar savings are key when considering the world currency functions of the US dollar. First as a world currency the dollar should be stable enough to be used for a long term store of value, whether as part of official reserves or private savings. Second, stability of value is one of the foremost requirements for a currency to be used as store of long term value and if the dollar's value is fluctuating to the extent that other countries must begin tying their currencies to multiple currencies to mitigate the impact of the dollar's fluctuating value on their economies, not to mention diversify their reserve holdings, then questions arise to the dollar's viability as standard of account and store of value. Essentially, if the dollar can't be trusted as a reserve currency, it's failing to fulfill one of its responsibilities as an international currency.

4.2 Extent of Decline

The evidence presented in the preceding sections is indicative of a decline in the dollar's role as world money according to both the Neoclassical and Post Keynesian perspectives. In this section, the extent of the decline will be evaluated.

The dollar's once preeminent position has come into question. The degree to which the dollar is performing the various roles of an international currency have decreased as has confidence in the dollar and its value have depreciated. However, the decline of the dollar still has a long way to go before it is replaced as the leading world currency.

The dollar's use as a medium of exchange has suffered. The dollar's use in trade invoicing is still substantial but has borne losses. This is most pronounced on the periphery of the European Union. The euro has gained ground to the detriment of the dollar, especially with candidate countries but to some degree this is to be expected as candidate countries build stronger trading ties with EU countries. The dollar has likewise lost ground in some Asian countries, to the tune of almost 20 percent in South Korea, which is perhaps more troubling as Asian countries trade in mass amounts with both the US and EU and would expected to be more equally influenced by US and EU politics than EU candidate countries that are clearly biased toward the euro.

The use of the dollar as a means to price and trade commodities has also come under threat. Due to the dollar's erratic value in recent years, there have been implorations by some to price commodities in other currencies to provide the stability that the dollar once provided. The magnitude of the decline in this area is difficult to quantitfy. No commodities that are officially priced in dollars have switched. However, it would seem that some are on the brink, especially some oil producing countries. If a substantial producer of an essential commodity were to makes the switch it could trigger a stampede.

Using the dollar to denominate international debt has been declining. The dollar has bee seriously challenged on this front by the euro and while the dollar share of the denomination of international debt securities in 2004 remained about 15 percent higher than the euro share, it has fallen dramatically, less than 10 years earlier, in 1996, the dominated all other currencies used to denominate 75 percent of international bonds and it is now used for less than half (Tavlas 1998, Faruqee 2004). Additionally, as the dollar's value fluctuates, more and more countries are seeing the need to denominate their external debt in a diverse number of currencies to protect themselves from currency risk. There has clearly been a significant decline in the dollar's use as an instrument of credit,

Additionally, while percentage of dollars being used as official reserves remains high many feel it is too high, in light of the dollar's falling value. It is however difficult to diversify out of dollars when so many countries hold such a large volume of dollars. A parallel can be drawn with the reluctance of countries to move out of silver (or bimetallism) in favor of the gold standard. Such a massive selling of dollars would certainly lead to a crash in the dollar's value and the costs to those still holding dollars would be substantial. Those with their personal savings in dollars do not have to share this concern to the same degree as the amount held is lower than the billions or even trillions held as official government reserves and as a result, dollar savings in Asia have begun to fall. They remain high in Latin America, however, and are likely to hold there longer because of the full or partial dollarization of many Latin American economies and also the close geographic and economic ties with the United States.

While there has been a decline in all the dollar's primary functions as world money, the dollar does remain on top. The fall of the dollar still has a long way to go and the dollar will likely continue to decline if the dollar's weaknesses are not quickly remedied.

4.3 Causes of the Decline and the Future

This section will address the final research question, the causes of the decline of the dollar according to Neoclassical and Post Keynesian perspectives. There will also be a discussion of how the two schools see the decline of the dollar and what they propose or envision happening in the future.

4.3.1 Neoclassical Causes

According to Neoclassical analysis the decision to use an international currency is based on the currency's stability. If the dollar is declining in its use as a medium of exchange, what they see as the most important function, this would be because it has become less stable, its value is declining. If the value of the currency has declined it it's because domestic economy has experienced too much inflation. Neoclassicals see this as being causally linked to the money supply, if inflation is high or increasing it is as a result of an increase in the money supply.

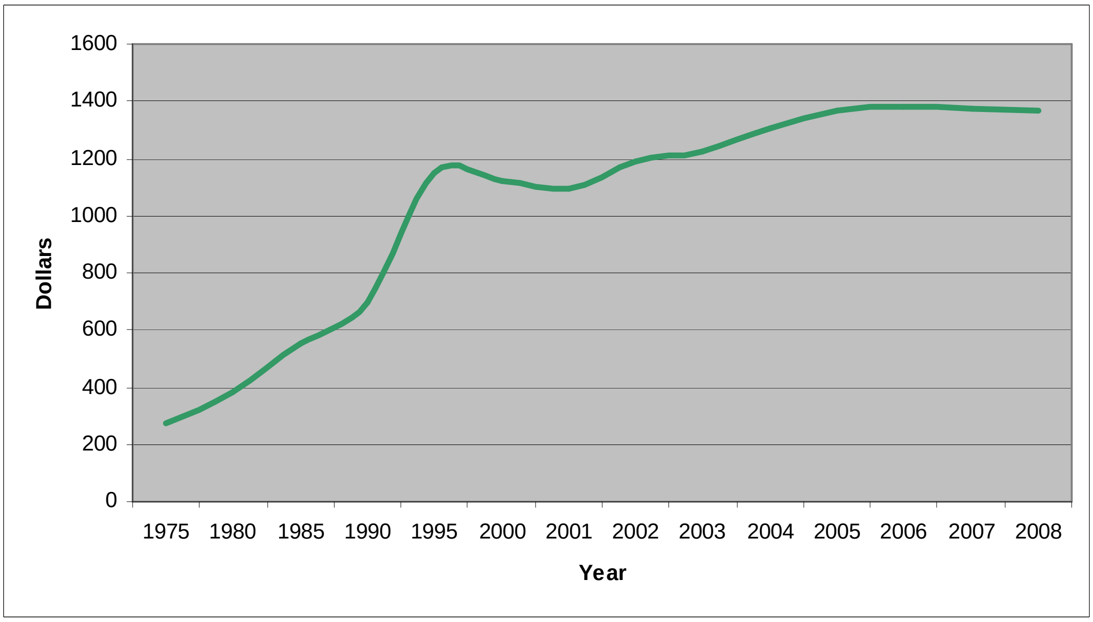
The money supply of the United States has indeed been increasing at an alarming rate. The US government has failed to exercise restraint when it comes to printing money to correct its current account imbalance. Since the US government has the virtually unchecked power to print world money, when it experiences a trade deficit it can just *make more dollars*. At first this supplied the world with additionally liquidity as the global economy expanded but as the deficit has ballooned (see chart in section 1.2), the money supply has exploded and the dollar's value plummeted because there are simply too many dollars in circulation, the dollar ceased to be a scarce commodity.

The graph below shows how the money supply in the United States has expanded. The graph shows the money supply of the United States according to the Federal Reserves M1 measure (this includes the most liquid forms of money such as currency and bank deposits) from 1975 when the United States first began to have occasional deficits until 2008. Clearly the money supply mushroomed throughout the 1980s and early 1990s. From 2000 to the present the increases have been more modest, even leveling off in the last few years. This lack of restraint in printing money, however, is partially responsible for the current crises facing the dollar.

Figure 4.8

The Money Supply of the United States, 1975-2008

(Billions of US Dollars)

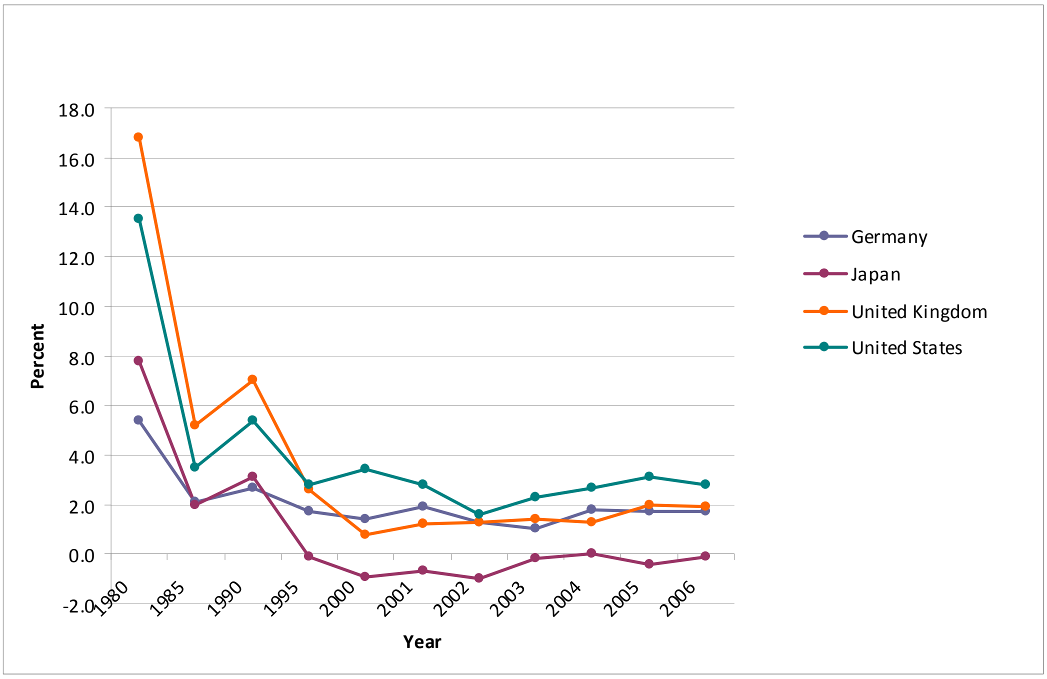


Source: Federal Reserve

However, as the money supply of the United States has increased, has this caused the inflation that Neoclassicals predict? And damaged the dollar's stability? As can be seen in the graph below, which shows the inflation rate for the United States and several other advanced economies from 1980 to 2006, the inflation rate in the United State fluctuated around the 3 percent mark for many years until it was pushed higher in 2008 by global inflation in energy and food costs, reaching about 5.6 percent in July of 2008 (IMF, 2008). While higher than the 2 percent inflation rate demanded by the European Central Bank for euro zone counties, which even many euro zone countries fail to manage, 3 percent is an acceptable rate for an advanced economy. Interestingly, from 1980 until 1990, when the United States was having one of the most rapid expansions of the money supply depicted on the above graph, inflation actually fell overall. Additionally, after about 1990, it was fairly stable, despite continuing increases in the money supply, until the globally experienced inflation spike in early 2008.

Figure 4.9

Inflation Rate for Selected Countries, 1980-2006



Source: International Monetary Fund

Since the United States has not experienced the inflation that Neoclassicals associate with increases in the money supply, the question to Neoclassicals is why not? One reason may be because dollarization has absorbed some of the excess money supply. By using dollars for more functions in more economies, the domestic money supply has not absorbed all of the increases but rather it is spread among the various economies that use dollars as their domestic currency. While dollarization could serve as an explanation as to why the US economy has not experienced the inflation expected by Neoclassical economists, does the moderate inflation rate mean that the dollar has been stable? An international currency's value must also remain stable against those of other developed economies and the dollar has largely failed here. As noted in the chapters 1 and 3, the dollar's value has been steadily declining from its postwar strength (see table 1.2). This is also a lack of stability and would be a cause for concern for Neoclassical economists.

Neoclassicals will continue to monitor the stability of the dollar in order to ascertain if it can retain its title in the future. Unfortunately for the dollar, its value has been on a steady decline for the last few decades. Additionally, the money supply in the United States has been surging, while it hasn't yet caused inflation, it is unlikely that the world economy will be able to continue to absorb all of the dollars being injected into the system and the excessive number of dollars will lead to a more and more unstable currency. Neoclassicals would argue that as the dollar continues to become more stable and indeed as the US economy becomes more volatile, the dollar will be used less and less as the medium of international exchange, its role as world money (in the neoclassical view) will decline further.

The next international money, according to Neoclassicals, would be chosen for its ability to function as a medium of exchange, therefore its stability. Ideally this would be a currency that was backed by a commodity (i.e. gold), however as there aren't any, this would likely mean the euro. While some question the ability of currency unions to provide the necessary stability, as the different economies will have different needs (Tavlas 1998), the euro is really the only candidate at the moment. While the financial markets in Europe are not as developed as those in the United States, they are far ahead of those in Asia. Additionally, the professed objectives of the ECB are purely neoclassical. The primary objective of the ECB is to maintain a stable price level in the euro zone, in other words keep inflation down; their target level is below 2 percent. This would make the euro an attractive choice to the Neoclassicals, at least in the short term.

4.3.2 Post Keynesian Causes

Post Keynesians see the most important attribute of a currency to be its liquidity. The key ingredient for supporting this is the strength and competitiveness of the issuing economy. If the dollar is declining in its role as a settler of debt and store of value, Post Keynesians would look at the dollars liquidity and the relative strength of the US economy to determine why.

Given the information present in the previous section on the growth of the money supply of the United States, liquidity is clearly not the problem. However, while there seem to be plenty of dollars to go around, not all of those dollars are necessarily as wanted as they used to be. As Whitman states in her article, *The Current and Future Role of the Dollar*, there has been a surge in world reserves, primarily made up of US dollars but that the explosion has largely been driven by *supply* and *not demand* (1974:568). When Whitman was writing in the early 1970s, dollar reserves were almost at their peak, nearing 80 percent of world reserves before declining in the 1980s (see figures 4.5 and 4.7 that show the dollar portion of foreign exchange reserves). However, the trend of ballooning reserves has also been prevalent in the last decade—almost tripling and the dollar portion has again been rising from a low point of about 45 percent in 1990 to its current 65 percent (Losing Faith 2007). While this shows dollars are still being used heavily as a reserve currency, too many dollars in the system decrease the dollar's value. This plethora of excess dollars in the world financial system is a direct result of the United States' attempt to finance its current account deficit and the fact that the printing of dollars is at the sole discretion of the US government. This constantly ballooning supply of dollars is threatening to the dollar's value, which makes it less attractive as both a denominator of debt and store of value, and it does not help to ease the nerves of jittery central bankers.

The Post Keynesians don't necessarily take issue with the printing of money to cover the deficit, but by the fact that the current account deficit exists in the first place. The surge in imports to the US and corresponding lack of exports that create the current account deficit are indicative of the weakness of the American productive base. The American share of the world economy (see 4.11 below) is also demonstrative of the decline of the American productive capacity in comparison to other nations. When the dollar became the world money the US was the world's largest producer and exported in huge quantities to the rest of the world, now it imports far more than it exports. The United States has also gone from the largest creditor to the largest debtor nation and is now in debt to the tune of $2.3 trillion or 23 percent of its annual GDP and all as a result its import bill caused by the weakening of the US economy (Duncan 2003).

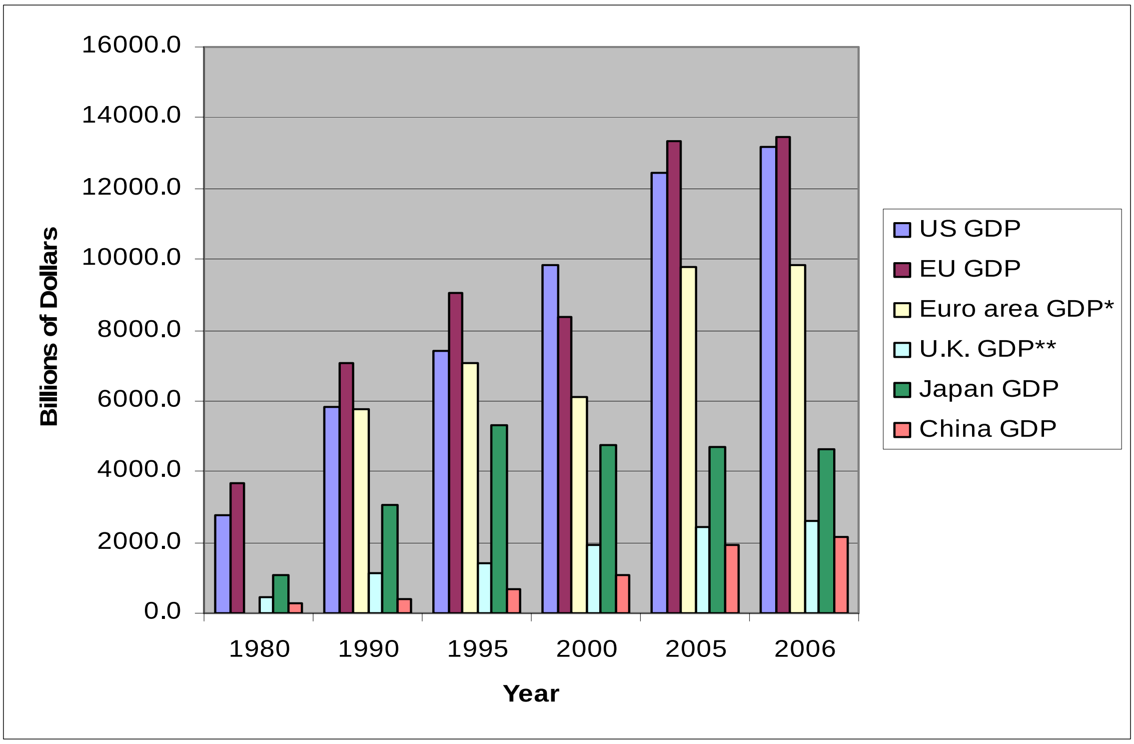
When considering the strength of the US economy and American productive capacity, the size of the US economy in relation to other major economic forces is paramount, hence this will be looked at first. As illustrated in the graph below, a graph of GDP overtime for selected advanced economies, data was unfortunately only available for all countries from 1980, ideally data would go back when the dollar began its challenge of sterling, after the first World War. The GDP of the European Union surpassed that of the US for the first time in 2003 and still remained marginally higher in 2006 (IMF). The economy of the EU is the most important to consider for this measure as no other economy comes close in surpassing the size of the United States' economy.

Though, this data is for the entire EU, and when considering the Euro as an alternative for the US dollar the GDP of the Euro area is clearly a more important measure as it is what truly supports the Euro's international functions and the Euro area doesn't include one of Europe's strongest economies, the United Kingdom, which possesses a strong currency itself. The GDP for the Euro area (data includes 12 countries designated as the Euro area by the IMF; Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain) remains substantially lower than that of the United States (see graph below). However, the Euro area is slated to expand. As new countries join the EU and their economies undergo transformation by the European Central Bank (ECB), they will be brought into the Euro area and this will in turn increase the area's collective GDP. Although, it remains unlikely that the UK will join the Euro area at any time in the near future, which would provide a much larger boost to the area's GDP.

Figure 4.10

Gross Domestic Product (GDP) for Selected Countries, 1980-2006

(Billions of US Dollars)



Source: Complied from International Monetary Fund, US Bureau of Economic Analysis, UK National Statistics

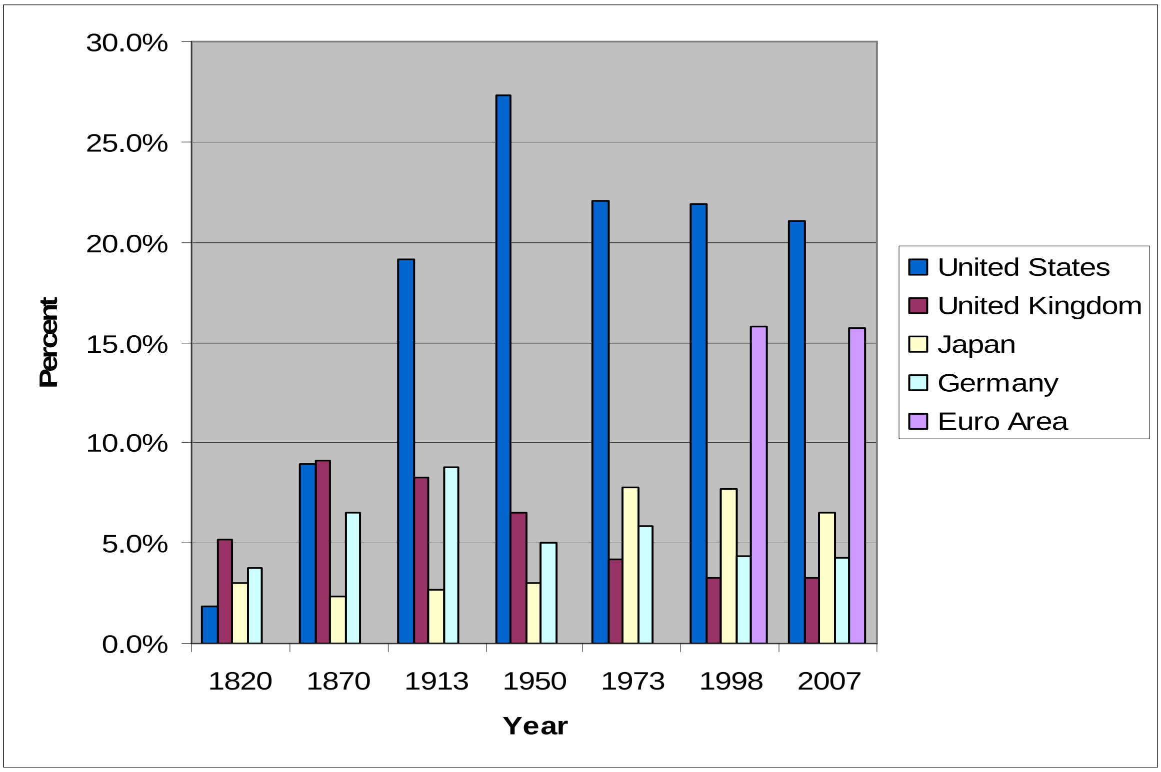
a. 1990 Euro area GDP data is from 1991
b. The UK GDP data was originally in millions of pounds. It was converted to billions of dollars at 1 dollar to .50474 pounds, the exchange rate on 9 July 2008.

The addition of new members to the EU and more specifically the Euro area, will undoubtedly enhance the currency's strength internationally vis-à-vis the dollar. However, given that these Euro candidate countries are already likely to have their strongest trading links with EU nations the degree to which they will expand the currency's influence into other regions is debatable. A much greater impact would be made by the addition of the UK, as the British pound already has some international functions that the Euro could add to its repertoire. The Euro could make gains in commodity trade as there are large commodity markets in London and the UK has much more extensive trading networks than those of the smaller East European countries petitioning to join the Euro area. Although, as stated previously, the addition of the United Kingdom to the Euro zone remains highly unlikely.

What is perhaps more troubling, as far as the status of the dollar is concerned, than the US being surpassed in economic size by the European Union is the decline of the United States' share of world GDP. As illustrated in the graph below, the share of the US of world GDP increased dramatically from 1820 to its peak in 1950. During the period when the dollar was challenging sterling for the role of key international currency (about 1913 to 1950) was when the United States' share of world GDP was reaching its peak. However, since 1950 the US' share has declined. While it's still the largest in the world it's now clearly facing competition, especially when seeing the large and growing share that the euro area has captured.

Figure 4.11

GDP for Selected Countries as a Percent of World GDP, 1820-2007



Source: Compiled from OCED World Economic Statistics, International Monetary Fund, Central Intelligence Agency

a. All data except the 2007 data is in 1990 dollars. 2007 data was converted from trillions to millions.
b. 1998 compliation data for the Euro area, the data for Luxemborg, Irleand and Greece are not in 1990 dollars

As the US share of the world economy has declined, the European Union also has a larger volume of net capital inflows and outflows. Refer to table 1.1, on net capital inflows and outflows separated by country. The share of the Euro Area is larger for every year listed in the chart and substantially larger for 2006. Additionally, the UK's volume is approaching that of the United States, alarming considering that the US economy is much larger than that of the UK. This is significant, especially the inflows, as it indicates the level of foreign investment in the US economy and alarming that it is lower than the euro area's.

As the United States' economy becomes less productive and less competitive (as evidenced by increasing imports, decreasing exports and a declining share of world GDP) it will not be able to support the large quantity of dollars in circulation, that are needed in circulation to provide adequate liquidity. As confidence in the ability of the US economy to support all of these dollars declines, the dollar becomes less acceptable and economic agents choose to denominate forward contracts and store value in other ways. This is what Post Keynesians see as happening to the dollar, the cause for its decline as world money.

For the next international currency, Post Keynesians will look to the world's strongest and growing economies. In the short term, this might mean the euro. The European Union's share of the world economy has been on the rise and some of its economies are large exporters especially of higher technology goods. However, the euro's days are also numbered. China is the economy to watch. While the size of its economy remains substantially smaller than the US or European Union (see graph 4.10 above), it has been registering huge growth rates for over a decade. It is also a huge exporter and registers enormous trade surpluses with many countries including the United States. The gigantic internal market also represents a huge capacity for growth. Competitiveness of the domestic economy is principle concern for Post Keynesians, and they would therefore expect the next leading currency to come from one of the world's most competitive economies.

Chapter 5
Conclusions

It is apparent that the dollar has declined as world money. The dollar has declined in its use in various types of international transactions. It is being used less for trade invoicing and the denomination of debt. Its role in commodity pricing has come under threat. The large number of dollars being used as foreign reserves is seen by many to be unstable.

Both Neoclassical and Post Keynesian schools of economic thought can see a decline in the functions of the dollar they view as important. However, they disagree as to the causes of this decline. Neoclassicals cite a lack of stability in the dollar, caused by a ballooning of the US money supply and the corresponding inflation such increases are seen to cause in Neoclassical economics. Whereas the Post Keynesian school looks to the lack of productivity and competitiveness of the US economy as evidence by its declining share of world GDP and astronomical current account deficit.

The Post Keynesian view of the causes of the decline of the dollar is more valid than those presented by Neoclassicals. However, there is clear evidence that the economy of the United States has weakened, both presented here and in the study conducted by Duncan. This research contributes to the existing body of literature in this way. America's share of the global economy has been on a steady decline since the dollar became international money and those of other countries have been on the rise, while the inflation that Neoclassicals predict has failed to materialize. International reserves are in a similar situation as when Whitman conducted her study in the early 1970s and recommended using more than one currency as international money. There are too many dollars and not enough demand for those dollars. However, something has changed, there exists another viable choice for international money—the euro. While, neoclassical theorists, like Tavlas, don't see this as operable, it has occurred in the past. Eichengreen and Flandreau have demonstrated that the dollar and sterling shared the top spot in reserve portfolios during the interwar years.

Therefore, as the economic might of the United States deteriorates and the current account deficit blossoms, it is expected that the dollar will continue to decline in all aspects of its role as world money—especially as the *only* world money. The currencies of other strong economies will pick up the slack and push the dollar steadily out. In the near future, this will primarily be the euro and it has already gained some ground but in the long term it will be the countries that maintain high growth rates and are able to produce and export to the rest of the world in substantial quantities. For this reason, China is the country and the yuan the currency to watch in the future.

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